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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,603

03/23/2004

Mehrdad Nikoonahad

TNCR.181US1

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09/20/2004

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EXAMINER

FULLER, RODNEY EVAN

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/807,603

Applicant(s)

NIKOONAHAD ET AL.

Examiner

Rodney E Fuller

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Rodney Fuller  
Primary Examiner

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Komatsu, et al. (US 5,171,999).

Regarding claim 1, Komatsu discloses “illuminating a portion of each of the two structures (Fig. 1, ref.# WM) using radiation that is substantially coherent (Fig. 1, ref.# 10), each of said portions having a dimension along the first line larger than the period of the corresponding structure; detecting (Fig. 1, ref.# 31, 34) diffracted radiation signals from the illuminated portions of the structures to provide at least one output signal; and determining (Fig. 1, ref.# 50, 51) from the at least one output signal a misalignment between the structures.”

Note: In Komatsu, Fig. 1, ref.# 10 refers to a source providing a radiation beam that is substantially coherent to illuminate a portion of each of the two structures (Fig. 1, ref.# WM), each of said portions having a dimension along the first line larger than the period of the corresponding structure. Fig. 1, ref.# 31, 34 refers to two or more detectors, wherein each detector detects a diffracted radiation signal from the illuminated portion of each structure to provide an output signal. Fig. 1, ref.# 50, 51 refers to a processor for determining from said output signals any misalignment between structures.

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3. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nose, et al. (US 5,751,426)

Regarding claim 1, Nose discloses “illuminating a portion of each of the two structures (Fig. 4, ref.# 2a, 2b) using radiation that is substantially coherent (Fig. 4, ref. # 3), each of said portions having a dimension along the first line larger than the period of the corresponding structure; detecting (Fig. 4, ref.# 12, 14) diffracted radiation signals from the illuminated portions of the structures to provide at least one output signal; and determining (Fig. 4, ref.# 13) from the at least one output signal a misalignment between the structures.”

Note: In Nose, Fig. 1, ref.# 3 refers to a source providing a radiation beam that is substantially coherent to illuminate a portion of each of the two structures (Fig. 4, ref.# 2a, 2b), each of said portions having a dimension along the first line larger than the period of the corresponding structure. Fig. 4, ref.# 12 14 refers to two or more detectors, wherein each detector detecting a diffracted radiation signal form the illuminated portion of each structure to provide an output signal. Fig. 4, ref. 13 refers to a processor determining from said output signals any misalignment between structures.

### ***Conclusion***

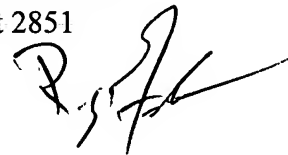
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rodney E Fuller  
Primary Examiner  
Art Unit 2851

A handwritten signature in black ink, appearing to read 'R. E. Fuller', is written over the printed name and title of the examiner.

September 14, 2004